

MONTROSE CHEMICAL CORPORATION OF CALIFORNIA

AFFILIATE OF STAUFFER CHEMICAL COMPANY

POST OFFICE BOX 147
TORRANCE, CALIFORNIA

AR0153

May 1, 1953

Los Angeles Department of Public Works
Bureau of Sanitation
748 City Hall
Los Angeles, California

Attention: Mr. Schneider
Industrial Waste Dept.

Dear Mr. Schneider:

This Company is developing plans for the installation of considerable new industrial waste disposal facilities. Mr. Clement (Bud) Sketchley has discussed these plans with your Department and advises me that you are particularly interested in the methods proposed for the neutralization of the acid in these industrial wastes.

The neutralizing equipment is shown on our Drawing No. 966 - 4. The equipment will operate approximately as follows:

- 1) The effluent will flow through two 20,000 gallon tanks connected in series before passing to the sewer. These tanks will be connected together and to the sewer so that they will be approximately half-full and the flow will be continuous.
- 2) The flow from the second tank will flow through a manually operated gate valve and then an automatic shut-off gate valve and then into a manhole which connects to the new sewer line.
- 3) The acid effluent will be neutralized with a sodium hydroxide solution in each of the two tanks. Compressed air will be used to agitate the tanks sufficiently to give a fairly uniform composition. The sodium hydroxide addition will be controlled by pH recording controllers in each tank.

May 1, 1953

4) Control in the first tank will be by a Beckman-Bristol pH meter and recording controller which will operate two separate electrical circuits to a one inch and a 1/4 inch solenoid operated valve on the caustic line. When the pH in the first tank drops below 5.0, the 1/4 inch valve will open and when it drops below 3.5, the one inch valve will open. The actual pH's can be changed to give the proper control. It is expected that the pH in the first tank will surge up and down and this system is intended to neutralize the bulk of the acid, leaving the fine control for the controller on the second tank.

5) Control in the second tank will be by a Beckman-Bristol pH meter and recording controller. This instrument is air operated and, in addition, is equipped with a limit micro switch circuit. The air controller will be used to throttle in caustic solution to give a pH of from 7 to 8, the exact setting will be such as to insure that minimum surges will be in excess of 6.5. The micro switch circuit will be used to control the automatic shut-off gate valve after the second tank whenever the pH is below 6.0.

6) In the event the pH in the second tank drops below 6.0, shutting off the flow, the two tanks will hold the flow for a minimum of two hours, which allows ample time to shut the plant down and stop the flow.

7) In addition to the automatic neutralizing control and shut-off, it is planned to continue our present system of routine manual checking and sampling as a check against the automatic controllers.

8) The pH controller on the second tank will be set up to operate a loud warning bell at anytime the pH drops below 6.0, shutting off the flow. This will insure prompt attention and get the plant shut down before the excess capacity of the two tanks is exceeded.

If any additional information concerning the neutralizing equipment or any other part of this proposed installation is desired, please feel free to call on me at any time.

Yours very truly,

MONTROSE CHEMICAL CORPORATION OF CALIFORNIA


A. R. Wilcox
Plant Superintendent

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